



Executive Summary

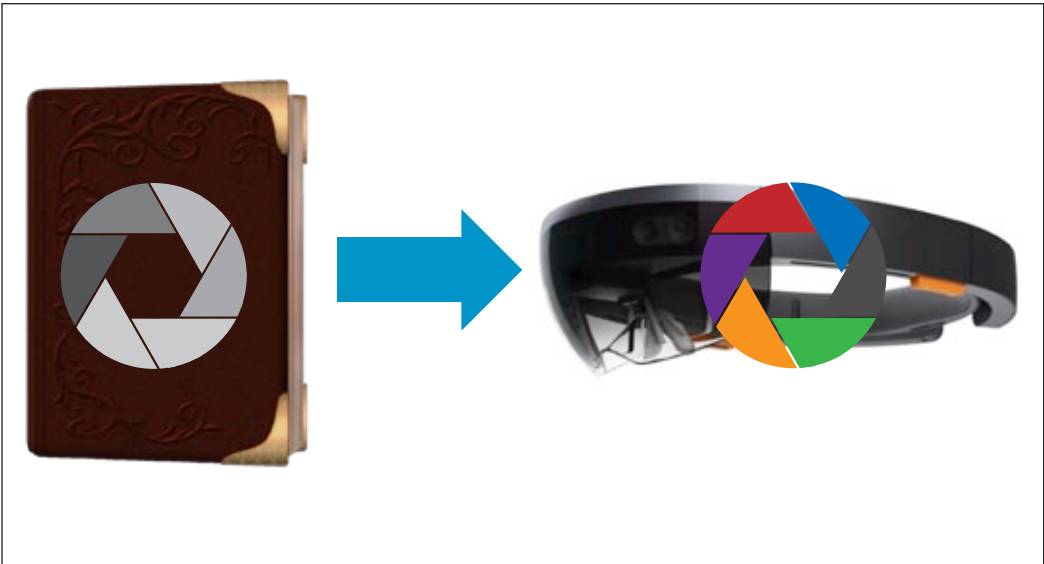
Winning in the 21st Century: A User's Guide

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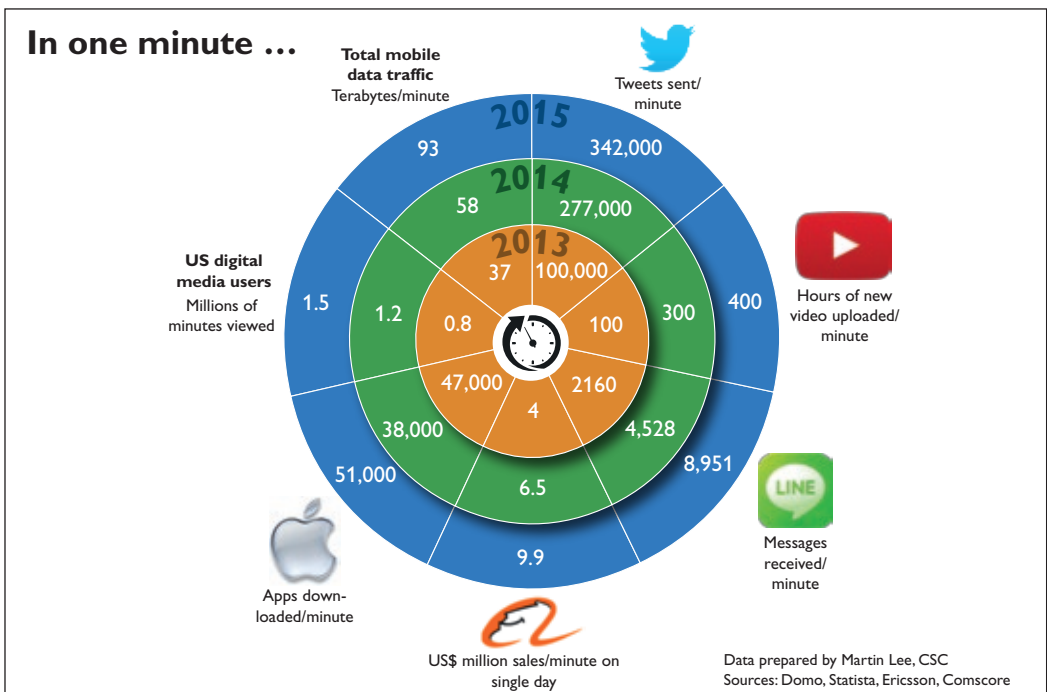


The world has changed significantly, and all businesses and government agencies need to change too



There is a pattern for winning in the 21st century

Arguments rage about what is hype and what isn't, the impact of 'digital' on GDP, whether the effects of mobile devices on society are helpful or damaging, and so on and on; but what seems incontrovertible is the steady penetration of digital technology in the world. Whether it's the amount of data storage, volume of internet traffic, number of people with smart devices, number of devices per person, or proportion of income spent on digital stuff, the digital world continues to grow – and grow in importance – apace. The following chart, using data assembled by Martin Lee, a CSC Research Analyst, shows how fast and how far digital activities are increasing. And, with every physical object potentially becoming both a sensor and controllable, there is a real sense that 'we ain't seen nothing yet.'



The inexorable march of the digital world continues apace

Over the last few years, exciting technology innovations have emerged that are driving these numbers, including advances in the user interface (such as virtual reality, augmented reality and mixed reality, wearable devices and gesture-based interfaces), a new generation of much more effective machine intelligence and learning, the internet of things, and more mature cloud offerings.

Meanwhile, these capabilities are increasingly available as services outside the enterprise that we can easily tap into. LEF's David Moschella coined the term 'The Matrix' to represent this phenomenon a couple of years ago, pointing out that what are typically thought of as cloud-based services (IaaS, PaaS, SaaS) are only the tip of the iceberg. For example, on LEF's September 2016 study tour, it became clear that the digerati (like Google, Amazon and Microsoft) are offering powerful machine intelligence as a service.

This availability of processing power, data, analytics and intelligence everywhere, accessible by every device and object; the capability to sense and control almost everything in the world – these changes are having deep impacts on business, community, government, sports, the arts: all aspects of the world. The biggest companies in the world are increasingly asset-light. An article in the January 2016 edition of *Fortune* magazine noted that Walmart and Amazon were valued at \$250 billion each, but Walmart employed \$154 billion of capital to create that value, whereas Amazon, increasingly a platform company, used only \$35 billion. New asset-light business models and sources of competitive advantage are shaking up many industries.

The dark side is evolving too. At the time of writing, the 'Mirai' internet of things botnet attack is big news, as are 'ZigBee drones' taking control of Philips Hue lightbulbs. And at the same time as the effects of the digital world on the human tribe are changing, with different demographics becoming more accepting of and comfortable with digital channels, there are also deeper changes in how we interact with each other, and how we use our time, mediated by digital capabilities.

In short – almost everything is changing, from the very macro to the very micro, in the face of digital opportunities and threats.

Perhaps because of this, IT is back as a topic in the boardroom. Most of us see digital as the key engine of innovation and growth. This is a far cry from 2003, when Nicholas Carr's article 'IT doesn't matter' was published in *Harvard Business Review*. Up to the end of the 20th century, IT was seen as an exciting, if unreliable, source of innovation. Then came Y2K, then the dot.com boom and bust. IT was 'on the naughty step' for about a decade, with CIOs being told to 'get back in their box' and focus on ERP efficiency and effectiveness. Things have changed so significantly since then, that the relatively narrow process-focused meaning that the term *IT* has taken on in businesses is insufficient, hence the world has (re)adopted the word *digital*.

We have sleepwalked into the 21st century with 20th century businesses



Our businesses and government agencies have sleepwalked into the 21st century with 20th century business models, organization structures, strategies, skills, leadership styles and infrastructures

Sleepwalking into the 21st century

The truth of the matter is that, in the face of all this change, most businesses have sleepwalked into the 21st century without making any significant changes. Companies still look mostly how they did a century ago, with fixed organizational structures, a physical asset-centric perspective, business models based on static sources of information, top-down leadership paradigms, etc., etc.

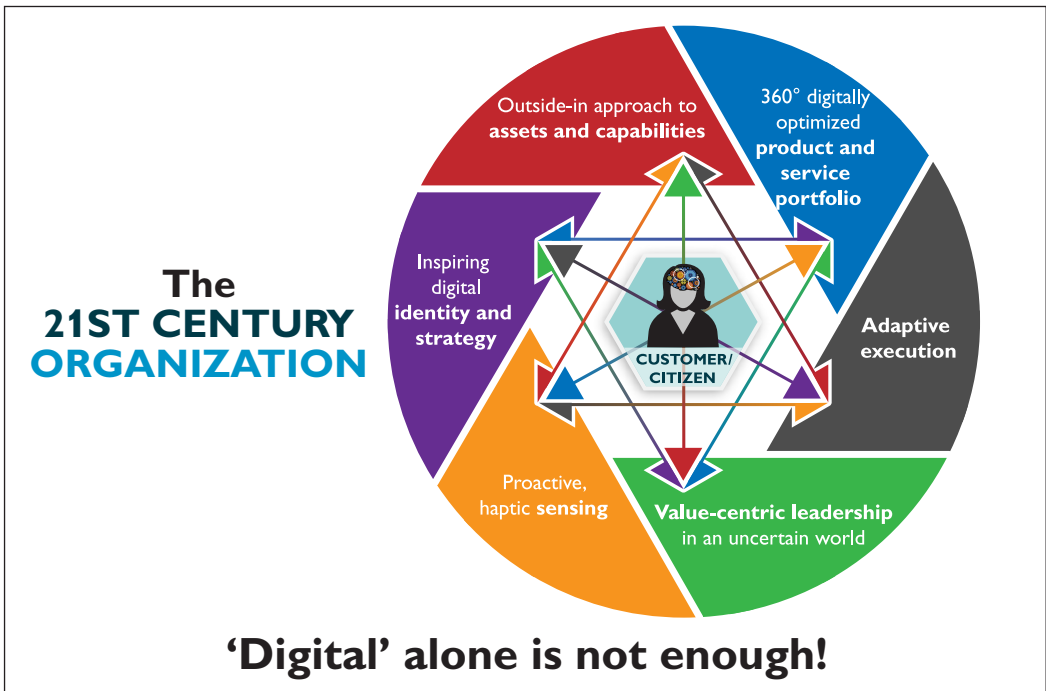
When companies do something different, we hear about them time and time again. Zappos has become an innovation starlet because of its ‘holacracy’ approach to structure, management and leadership. Companies shifting from selling for a fixed price to usage-based payments (such as Rolls Royce aeroplane engines, Michelin tyres and SKF ball bearings) get very frequent airings. Organizations allowing their staff to choose their projects and their managers seem crazy. Reverse mentoring seems exotic and naughty. When a new C-level title emerges (like Chief Innovation Officer, Chief Digital Officer, Chief Data Officer), people behave as if they have violated some natural law.

We treat the way companies work as unquestionable wisdom laid down in the mists of time. Every company must have a CEO, CFO, CIO. Organizations must be structured in hierarchies. Value should be measured by NPV.

It’s time to question all these assumptions, and see what we come up with. It doesn’t have to be, and almost certainly shouldn’t be, the same for every organization. It’s time to build businesses and government agencies that are ready to survive and thrive in the 21st century. And that means more than adopting some new digital technologies. Digital is not enough!

21st century organizations win by doing six things differently

Let’s get specific. Using our terminology, a 20th century organization (20CO) is no longer fit for purpose, and a 21st century organization (21CO) is built to survive and thrive in the increasingly digital world. 20COs are built for stasis, and although many purport to be customer/citizen-centric, 20COs are built around and focused on their products and processes. 21COs are different in six important ways, as shown in the chart below.



To win in the next decade and beyond, we need to re-imagine our organizations

These six form a kind of flow, clockwise around the figure above. Sensing feeds strategy; strategy focuses capabilities; capabilities define products; execution creates and supports products; and leadership makes the whole thing work. They are all mutually supportive and interacting. Improvements in any one area create new possibilities in the other areas.

In the table below, we contrast the nature of a typical 20CO with that of an ideal 21CO. (We exaggerate and caricature a little to clarify the differences.)

	20th Century Organizations	21st Century Organizations
Sensing	20COs are bad at sensing. They don't listen well to what's going on in the world. They don't experiment, don't look at a broad enough set of issues, don't involve a broad enough group of people, don't diffuse the learning widely enough, don't connect their findings to their strategies and plans. 20COs typically have small, underfunded, disconnected R&D functions writing reports that no-one in the rest of the business reads.	21COs devote significant effort to proactive, haptic sensing. This means investing in a broad range of technology, societal, competitive, ecosystem, regulatory and risk areas through experimental learning, involving a large group of individuals, diffusing the learning and acting on it.
Identity	20COs have come to equate strategy with planning. Their strategy involves updating the short-, medium- and long-term Gantt charts, with a strong emphasis on the short term, little attention paid to different scenarios, and weak articulation of identity (who we are, where we play, how we win).	21COs look at strategy primarily as identity. They ask: What do we mean in the 21st century narrative? Are we attractive to customers, partners, current and potential talent?
Assets and capabilities	20COs focus on physical and tangible assets and capabilities (money, inventory, physical plant, staff, etc.) and don't treat information, customers and ecosystems as true assets. Further, they take an inside-out approach to building and owning assets, and are reluctant to access assets in the Matrix.	21COs use an outside-in mindset to plan the evolution of their assets and capabilities, and value intangible assets such as information, customer relationships and their ecosystem appropriately.
Portfolio	20COs often take a shallow, non-invasive approach to digitizing the value proposition and the customer experience. For many, 'digital' means digital marketing and eCommerce alone. In the vernacular, they have put digital/21st century lipstick on their 20th century pig.	21COs are continually reinventing their value propositions, products and services, based on evolution of the digital possibilities and customers' needs and attitudes.
Adaptivity	20COs have fixed, siloed structures, that are designed for ease of management rather than value creation. Projects are run in a waterfall fashion. Collaboration is difficult. The environment is hostile to experimentation and innovation.	21COs fight to ensure structures and metrics never get in the way of information, collaboration, experimentation and value creation.
Value	20COs have weak, value-based leadership. They often make decisions based on momentum, politics and charisma. Their management accounting models are overly simplistic, based exclusively on ROI/NPV, etc. They focus very little on benefits realization.	21COs keep improving their ways of choosing, executing and reaping the value of operations and investments in a complex, uncertain, evolving world.

Based on this six-part framework, LEF has created a 36-point capability model for winning in the 21st century. The full report discusses this model in detail, with examples. We are using this model to help companies and public sector agencies understand their strengths, weaknesses and needs in order to thrive in the next decade. We are also structuring our research agenda for 2017 and beyond around this thinking.

We are excited to work with our clients in 2017 building businesses and government agencies that can evolve, survive and thrive in the 21st century.

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About Leading Edge Forum

Leading Edge Forum (LEF) is a global research and thought-leadership community dedicated to helping large organizations identify and adopt Next Practices at the growing intersection between business and information technology. We believe that as business and IT become inseparable, virtually every aspect of work and the modern firm will need to be re-imagined, and this creates exciting new digital opportunities.

Through an annual membership programme of research, events, onsite workshops and advisory services, we support Chief Information Officers and other senior digital business leaders in areas such as strategy, organizational change, executive education, talent development and the future of the IT function. Members enjoy personalized access to our global network of thought leaders, clients and leading practitioners.

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